

SUMMARY AUDIT REPORT

for the September 2016
International Cyanide Management Code Recertification Audit



Prepared for:

Kinross Gold Corporation
Round Mountain Gold Corporation

Submitted to:

International Cyanide Management Institute
1400 "I" Street NW, Suite 550
Washington, D.C. 20005

FINAL

22 February 2017



Ramboll Environ

901 Fifth Avenue, Suite 2820
Seattle, Washington 98164 USA

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SUMMARY AUDIT REPORT

Name of Mine: Round Mountain Gold Corporation – Smoky Valley Common Operation

Name of Mine Owner: Kinross Gold Corporation

Name of Mine Operator: Round Mountain Gold Corporation (RMGC)

Name of Responsible Manager: David Hendriks, President and General Manager, RMGC

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Location detail and description of operation:

Round Mountain Gold Corporation (RMGC) currently operates the Smoky Valley Common Operation, a large, conventional open pit heap leach and milling operation located in Nye County, Nevada, USA. The mine is located between the Toiyabe and Toiyama mountain ranges, in the Big Smoky Valley, near the Town of Round Mountain and approximately 45 air miles northeast of Tonopah (Figure 1). The subdivision of Hadley, which houses many of the RMGC employees and contractors, is located approximately two miles to the southwest. The mine operates under a Mining Plan of Operations on lands managed by the U.S. Department of Interior, Bureau of Land Management (BLM) and the U.S. Department of Agriculture, Forest Service (USFS), as well as on private land owned by RMGC. Several small cattle ranches are located to both the north and south of the mine.

The mine is located in an arid climate, and has an average annual precipitation of approximately 6.5 inches. There are no perennial surface water bodies; water flows are restricted to large storm events or rapid snowmelt conditions. Groundwater beneath the mine site ranges from 180 to 425 feet below ground surface.

The Round Mountain deposit contains diverse ore grades and mineralogical ore types, which dictate the applicability of various extraction processes employed. The mine operates two open pits in two distinct areas; the Round Mountain Pit and the Gold Hill Pit.

Higher grade sulfide ore mined from the Round Mountain Pit is processed by a mill using gravity, froth flotation, and cyanide leach circuit unit processes. A gross gold concentrate is produced by the gravity circuit with the gravity tails being processed by froth flotation. The flotation concentrate is then combined with the coarse gold processing circuit tails and then

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Auditors' Finding

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance

with the *International Cyanide Management Code*.

RMGC has experienced no significant ICMC compliance issues and has only used ICMC certified cyanide suppliers and transporters since the previous audit.

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Audit Team Leader: John Lambert
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Names and Signatures of Other Auditors:

Jared Olsen
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Date(s) of Audit: 19th to 23rd September 2016

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the *International Cyanide Management Institute* for Code Verification Auditors. I attest that this Detailed Audit Findings Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the *International Cyanide Management Code Verification Protocol for Gold Mine Operations* and using standard and accepted practices for health, safety and environmental audits.

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1. PRODUCTION Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.

Standard of Practice

1.1 Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 1.1

Discuss the basis for this Finding/Deficiencies Identified:

RMGC continues to purchase liquid sodium cyanide solution from Cyanco Company, LLC ("Cyanco"), Winnemucca, NV, under a corporate contract, dated 1 January 2011 and expiring on 31 December 2017. The contract requires that both parties to achieve and maintain compliance with ICMC requirements. Cyanco was originally certified to the ICMC in 2006, and was recertified on November 6, 2009, July 12, 2013 and 22 November 2016.

2. TRANSPORTATION Protect communities and the environment during cyanide transport.

Standards of Practice

2.1 Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 2.1.

Discuss the basis for the Finding/Deficiencies Identified:

Cyanco continues to subcontract TransWood, Inc. (TransWood) to deliver liquid cyanide solution in bulk delivery tankers to RMGC. TransWood was originally certified to the ICMC in 2006, and was recertified on November 6, 2009 and July 12, 2013. At the time of this audit the TransWood operation was listed as certified to the code on the ICMI website. We understand that the TransWood is in the process of recertifying their transportation operation.

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There has not been a change in the means of transportation from the previous recertification audit, and the same contract requirements are in place. Under the contract, Cyanco is responsible for compliance with the requirements of the ICMC applicable to all aspects of production and transportation to the delivery locations, including providing appropriate packaging and labelling, storage, evaluation and identification of transportation routes, interim loading and unloading, transportation to the delivery locations, training of transporters and handlers, transport maintenance for any transport vehicles provided by Cyanco or its affiliates, security, and emergency response procedures throughout the shipping process.

Cyanco must exercise due care to select carriers who will perform to the same standards as are required of Cyanco. The contract specifically extends all requirements and prohibits changes in subcontractors without RMGC approval. The contract also specifies that Cyanco is responsible for pumping the cyanide into the storage tanks at the designated storage facilities, and defines the transfer of title as the point where product has *"passed the flange from the transport truck into the storage tank at the designated storage facility at the Delivery location"*.

2.2 Require that cyanide transporters implement appropriate emergency response plans and capabilities, and employ adequate measures for cyanide management.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 2.2.

Discuss the basis for the Finding/Deficiencies Identified:

Please refer to Section 2.1 above. RMGC purchases cyanide exclusively from Cyanco who continues to use TransWood for transport of the product between the Winnemucca production plant and the RMGC mine. The supply contract between Kinross and Cyanco requires that both Kinross and Cyanco remain signatories of the ICMC for the term of the contract and agree to comply with applicable environmental, transportation and safety regulations, including the ICMC. TransWood was originally certified to the ICMC in 2006, and was recertified on November 6, 2009 and July 12, 2013. At the time of this audit the TransWood operation was listed as certified to the code on the ICMI website. We understand that TransWood is in the process of recertifying their transportation operation.

There has been no change in chain of custody practices since the previous recertification audit. RMGC personnel sign and receive copies of a bill of lading that documents custody from the point that a trailer is filled at Cyanco's Winnemucca facility, date/time of arrival and weighing at RMGC, offloading at the specified storage tank, reweighing, and date/time of departure from RMGC property.

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3. HANDLING AND STORAGE Protect workers and the environment during cyanide handling and storage.

Standards of Practice

3.1 Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 3.1.

Discuss the basis for this Finding/Deficiencies Identified:

The cyanide offload and storage facilities at RMGC have not changed since the previous recertification audit in 2013. Cyanide solution is delivered to six locations: the Mill, South ADR Plant, West Dedicated Phase 4/5 Feed Pond, West Dedicated Phase 6 Feed Pond, Dedicated Plant and the Gold Hill ADR Plant.

In 2006 a registered Professional Engineer with Knight Piésold Consulting (“Knight Piésold”) performed an independent evaluation and found these facilities at Round Mountain to be adequately designed and constructed. The design and construction of the cyanide offload/storage facility at the Gold Hill ADR that was commissioned in 2013 is documented in reports prepared by Interrallogic Inc, and signed and stamped by a State of Nevada registered Professional Engineer in accordance with the State of Nevada requirements.

The offload/storage facilities at the West Dedicated feed ponds are located away from offices and frequented work areas within securely fenced areas that are only accessed by authorized personnel. The offload/storage facilities at the mill and ADR Plants are located in areas of restricted access that are monitored by security cameras. These areas are equipped with Hydrogen Cyanide (HCN) Gas Meters which alarm if HCN levels exceed 4.7 ppm. The nearest residences are located in Hadley, over two miles away, and old town of Round Mountain over 1.7 miles away. There are no perennial streams or other natural water bodies within the proximity of the mine site.

The design and configuration of the cyanide offload/storage facilities have not changed since the previous recertification audit in 2013. Each offloading facility is provided with a curbed concrete containment slab that drains to a secondary containment (i.e., concrete containment basin or lined process pond). The pad and containments were observed to be in good condition. All cyanide storage tanks are located on concrete or HDPE-liner containments. These materials provide a competent barrier to leakage. During this onsite recertification audit, the auditor verified that the concrete containments were in good repair, with cracks in

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the concrete grouted and sealed. A digital readout is located at each offload facility allowing operators to monitor tank levels. Each tank is equipped with a siren and flashing light that are set to alert if the tank level reaches 90%. RMGC operators in the Mill and ADR control rooms can remotely monitor automated level indicators for the storage tanks via a Distributed Control System that include both audible and visual high-level alarms. Cyanco is also able to remotely monitor tank levels and calculate the fill volumes for each tank to prevent overflow, and manage the filling schedule as part of the supply contract. All cyanide storage areas are physically separated from other process chemical tanks and the tanks are located outside and are well ventilated with minimal potential for hydrogen cyanide ("HCN") gas build-up.

3.2 Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 3.2.

Discuss the basis for this Finding/Deficiencies Identified:

Cyanide is only delivered as a 30% aqueous solution in dedicated tanker trailers. "Dripless" discharge fittings are used in conjunction with "Ergo Brackets" to provide a support with a catchment trough on which the delivery driver can rest the hose while connecting and disconnecting it to the feed line.

The TransWood driver is responsible for following Cyanco procedures that describe the process of checking tank levels before beginning the unloading operation, uncapping the quick-release dripless coupling on the storage tank, attaching the discharge hose from the cyanide tanker, attaching a compressed air source (i.e., plant air or an onboard blower), and pressurizing the system to transfer the solution from the trailer to the stationary solution tank. The TransWood driver carries appropriate personal protective equipment, use of which is addressed as part of the Cyanco procedure. An RMGC operator witnesses the coupling and decoupling of the tanker to confirm all pre-checks and operating procedures are followed.

Procedures requires that the any residue cyanide solution is washed down to the collection sump after completion of the unloading operation to remove any residual cyanide. In general all of the off-loading facilities were observed to be clean and free of visual evidence of cyanide. An exception noted during the audit was at the Mill off-loading facility where cyanide salt residue was observed in the ergo bracket tray at the hose connect point. The residue was immediately removed by RMGC and subsequent to the field component of the audit RMGC communicated with Cyanco to ensure that TransWood drivers follow procedure. RMGC also updated their offloading procedure to ensure that the RMGC operator checks that the driver has satisfactorily completed the wash down.

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4. OPERATIONS Manage cyanide process solutions and waste streams to protect human health and the environment.

Standards of Practice

4.1 Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.1.

Discuss the basis for the Finding/Deficiencies Identified:

RMGC has developed, implemented and maintained written management and operating plans and work procedures for the safe operation and management its cyanide facilities, and evidence indicates that the procedures have been in effect over the last three years. Written work procedures and safe work practices include a wide range of RMGC departmental Standard Job Procedures (a.k.a. "Task Training Cards" or "Task Cards"). At the facility level, Task Cards and other operational instructions govern all cyanide management activities. Task Cards also serve to document individual training actions related to the work task. Over the past three years RMGC has been revising and reorganizing these operating procedures and task cards into a *Safe Practices Manual (SPM) for Leach Pad Operators* and a *Safe Procedures Manual (SPM) for ADR, Dedicated and Gold Hill ADR Plants*. This initiative was implemented to reduce redundancy, consolidate training, and provide better document control. The initiative was still ongoing at the time of this audit.

In addition to these work procedures other operating plans and permits are in place that stipulate operating requirements for the process facilities. These include Water Pollution Control Permits (WPCP) and supporting applications; Industrial Artificial Pond Permits (IAPP); Water Balance Manual; Environmental Management and Procedures Manual (EMPM); Spill Prevention, Control and Countermeasure (SPCC) Plan; Storm Water Pollution Prevention Plan (SWPPP); and Emergency Response Plan. The assumptions and parameters on which the heap leach facilities, process plants, Mill and TSF facilities were designed are identified in the design reports for the heap leach facilities, process plants, Mill and TSF that incorporate the appropriate regulatory requirements. State regulatory permits identify the primary assumptions and parameters on which these process facility designs are based as well as the regulatory requirements for operating these facilities. The RMGC Fluid Management Plans provide the management procedures for the fluid management systems defined by the WPCPs, which include but are not limited to, the active cyanide facilities. Among other items, the WPCPs stipulate inspection and monitoring requirements for leak detection systems and

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process solutions, and provide operational limitations such as allowable TSF freeboard, maximum ore heights on leach pads, solution application rates, and storage time of process solution in single lined ponds. The Fluid Management Plans provide monitoring schedules and list freeboard requirements for normal operating conditions.

The IAPPs provide the operating requirements to prevent wildlife from gaining access to impoundments containing materials that harm wildlife. RMGC utilizes physical deterrent systems (netting, bird balls on ponds, covered (netting or crushed rock) solution collection channels) to protect wildlife. RCGC's Environmental Management Procedures Manual includes procedures for collecting and analyzing samples as required by the Permits.

RMGC has inspection programs in place for all cyanide facilities. These programs have not significantly changed since the 2013 ICMC Recertification audit. Inspections are documented on checklists and inspection forms. Mill personnel conduct detailed, routine inspections of the Mill and the Tailings Dam personnel conduct inspections of the tailings pipeline, storage facility, reclaim and seepage channels and collection ponds. Process personnel conduct detailed, routine inspections of the heap leach process areas including the pads, pond systems, and process plants. The inspections are documented on checklists and inspection forms and records are scanned and retained. In addition to operator inspections managers perform quarterly "Planned Team Inspections" of areas (mine-wide) to identify hazards and issues requiring repair, such as cracks in any concrete containments. The Environmental and Safety Departments also conducts inspections. The Environmental Department conducts formal weekly and monthly inspections (depending on the potential risks) of facilities (Mill, process plants, TSF, leach pads, channels, sumps, containments and ponds) and wildlife protection measures and observances. The Safety department is responsible for auditing the inspection and use of hand-held multi-gas instruments and dry chemical fire extinguishers, PPE Stations and antidote kits and conducts monthly inventory and inspections of emergency response equipment. Knight Piésold is retained to conduct annual inspections of the TSF and the reports are submitted to the Nevada Division of Water Resources.

In addition to the inspection procedures outlined above, RMGC has implemented a preventative maintenance program for critical equipment. The preventative maintenance schedule provides a listing of the equipment along with the planned time for maintenance. The system is managed using JD Edwards® (JDE) software, which automatically produces preventative maintenance work orders on an established schedule. The system identifies future activities for regular preventative maintenance and includes information on the task requirements and completion.

Although inspections were being completed as scheduled and generally the site was observed to be well maintained, a number of observations during the site audit indicated that the inspection program was not adequately identify deficiencies. During the audit three shower eyewash stations, were found to be faulty, salt encrustation was observed on a pump near the ADR; the cap on a leak detection port was damaged and the port left open; cyanide salt was

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observed in the Mill off-load drip tray; open solution ponding was observed at several locations along the toe of the Gold Hill Leach Pad; and cyanide solution was observed dripping down stairwells in the Dedicated Plant and ADR. Prior to the auditors departing the site, the shower/eyewash stations had been checked and repaired; the salt observed in the Mill off-load drip tray had been removed and the solution sample ports for the carbon tanks in the ADR had been adjusted to prevent solution dripping down the stairwell. Prior to preparation of this report RMGC had also addressed or put measures in place to rectify the other deficiencies identified. Nevertheless RMGC was requested to review the effectiveness of their inspection program. Subsequent to the field component of the audit RMGC developed and implemented a refresher training program on Work Area Inspections. The program includes classroom training as well as practical training for mill workers, and was completed by all operators in December 2016. RMGC indicated that Work Area Inspection training will be scheduled annually in conjunction with Cyanide Awareness Training. RMGC provided training records as evidence that operators were retrained in inspection procedures and completing inspection forms.

RMGC uses Kinross's Authorizations for Expenditure ("AFE") procedure when applying for capital and/or project funding. The procedure includes a formal environmental and health and safety review of the proposed project and sign-off by various management departments including the Vice President and General Manager, as well as Environmental, Safety, and other management representatives. This project review process is followed for all capital expenditures over \$10,000, and therefore covers the majority of changes. Modification less than \$10,000 would be captured using a Level One Risk Assessment tool/card in which risk is evaluated before a change using a simple potential exposure versus potential consequences matrix; and review of controls to mitigate the risk generated by the proposed changes. Depending on the resultant risk, a Job Hazard Analysis can be triggered, with appropriate inputs from supervisor/department for review and approval.

RMGC implements cyanide management contingency procedures. The Fluid Management Plans contain procedures to correct an upset in the operation's water balance and address both "normal operations" and "unusual operations" for each of the process facilities. RMGC inspects and documents the pond levels each shift to identify potential upset conditions. Operational inspection checklists and forms include noted deficiencies or problems identified by inspections. The WPCP Applications contain a Seasonal Closure Plan (for unplanned closure due to extremely severe weather conditions), Temporary Closure Plan, and a Tentative Plan for Permanent Closure. The seasonal and temporary closure plans include measures for the ongoing monitoring and maintenance of facilities and to ensure that adequate storage capacity is available in the solution ponds. RMGC's Integrated Contingency Plan provides response and mitigation measures for spills, leaks, or releases of petroleum or hazardous materials into the environment and is designed to minimize hazards to personnel and the environment.

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RMGC relies principally on excess pond capacity to mitigate unintentional releases of process solution. The pond systems are designed to contain the 100-year, 24-hour storm event (2.5 inches) and 24 hours of draindown from the heaps during an unexpected power outage, while maintaining two feet of freeboard.

The power supply and backup systems have not changed since the 2013 ICMC recertification audit. A 230-kilovolt ("KV") power line provides primary power to the mine providing a total capacity of 40 MVA. A separate 60-KV power line feeds a transformer, located south of the TSF, providing a capacity of 7.5 MVA. Additionally, RMGC maintains diesel-powered generators to run critical equipment including process solution pumps at the various process areas, in case of a primary power failure. These generators automatically start when primary power is interrupted and are included within RMGC's routine preventative maintenance program.

4.2 Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.2.

Discuss the basis for this Finding/Deficiencies Identified:

Ore characteristics at the RMGC operation are such that significant variations in cyanide use do not occur. Ore mined from the new Gold Hill Pit is not milled. Manual sampling and analysis of solution forms the basis for cyanide addition and/or adjustment and includes pH control. Addition rates are monitored using manual titration, conducted every two hours by designated personal. Adjustments to cyanide feed rates are made in the Mill control room, as necessary. The stated goal is to optimize cyanide use.

Mill process guidelines include "set points" and minimum/maximum values for cyanide addition which are monitored at the head tank. The cyanide concentration at the tails tank is also sampled once a shift. A sample of Leach/CIL Operator Reports were reviewed and solutions were found to be within the set targets. RMGC has tested various cyanide addition rates and continually monitors its leach process to optimize recovery and minimize cyanide consumption.

4.3 Implement a comprehensive water management program to protect against unintentional releases.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.3.

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Discuss the basis for the Finding/Deficiencies Identified:

RMGC has developed a comprehensive, probabilistic (Stochastic) water balance model, using GoldSim® software, which tracks water flow throughout the engineered water management facilities at Round Mountain, including the dewatering and potable well systems, the Mill and TSF, all heap leach facilities, and the process plants (i.e., the South ADR Plant and Dedicated Plant). Generally, the model considers precipitation, evaporation, makeup water, ore leach rates, tailings deposition, ore and tailings uptake, seepage from the TSF to the Reclaim Ponds, reclaim water, power failure (the model can simulate loss of power), and dewatering and potable water uses including discharge to the Rapid Infiltration Basin. These parameters are considered in a reasonable manner and as appropriate for the facilities and environment. RMGC has also developed a similar model using GoldSim® for the Gold Hill process facilities. Generally, the Gold Hill design model considers, precipitation, evaporation, makeup water, ore leach rates, ore uptake, storm runoff, construction water and dust control, and dewatering and potable water uses including discharge to the Rapid Infiltration Basin.

Current operating procedures are considered adequate to prevent overtopping of ponds and the tailings impoundment. The RMGC operation is located in a region of high net evaporation; therefore, a significant amount of freshwater must be added to the processing facilities in order to offset the evaporative losses. Solution ponds are monitored routinely by operations and environmental personnel. The pond systems are designed to contain the 100-year, 24-hour storm event, and 24 hours of draindown from the heaps during an unexpected power outage, while maintaining two feet of freeboard. The seepage collection pond system for the TSF is sized to contain the 100-year, 24-hour storm event, operating inventories, and a 48-hour power loss. RMGC operates its pond systems to maintain dedicated storage capacity at all times to meet these design criteria. RMGC collects precipitation data from two onsite automated meteorological stations, one located at the Core Shed building and the other at the Gold Hill Leach Pad are used. The historical storm data used to evaluate the potential impact of storm events on the site water balance are derived from NOAA Atlas 14 precipitation data using an automated statistical interpolation on the NOAA website.

The Environmental Department compiles the data for input to the water balance model on a monthly basis and provides it to a consulting company retained to calibrate, maintain and run the water balance model. The data resides in the RMGC Environmental Data Management System ("EDMS").

4.4 Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

The operation is:

- in full compliance
- in substantial compliance
- not in compliance...with Standard of Practice 4.4.

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Discuss the basis for the Finding/Deficiencies Identified:

The heap leach pads, collection channels and solution ponds are the only facilities in which open cyanide-bearing solutions occur with WAD cyanide concentrations greater than 50 mg/l.

WAD cyanide concentrations in the tailings impoundment and the associated seepage collection pond system are well below 50 mg/l. RMGC uses the INCO® process to treat tailings prior to discharge. For the period January 2013 through June 2016 the maximum WAD cyanide concentration recorded in the final tails discharged to the TSF was less 1.0 mg/l.

The Industrial Artificial Pond Permits list the measures required to prevent wildlife from gaining access to such materials or to render the materials harmless to wildlife. With the exception of the tailings impoundment and associated seepage channels and collection ponds, all open process solutions are covered or protected by physical barrier systems. Measures implemented by RMGC include bird balls in solution ponds; French-drain system (i.e., perforated pipe covered with crushed rock) or framed netting at leach pad collection channels; netting at overflow containment channels; netting at collection sumps; framed netting at any temporary ponding areas on heaps; fencing at solution ponds and event ponds; and barbed-wire fencing installed along property perimeter to prevent ingress by larger animals. Netting is also used to cover ponding of the leach pads.

RMGC submits quarterly Wildlife Mortality Reports as required by the Industrial Artificial Pond Permit for the TSF. The permit also requires immediate verbal reporting of potential or known process solution related wildlife mortalities. Review of wildlife mortality records show that there have been a total of 17 cyanide related mortalities between January 2014 and September 2016. The majority of these were related to ponding or distribution pipeline breaks on the leach pads.

Since the previous recertification audit RCMC has introduced additional measures to reduce bird mortalities. These have included using full time pad walkers to monitor the conditions of the pad and rectify ponding or other operational issues, with assistance of pad operators as needed; using Wet Area Reduction by placing crushed ore from the Reusable Leach Pads over flat areas of newly placed Run-of-Mine ore to an approximate two foot depth to bury emitters; and utilizing BirdXPellar sonic bird repellers and placement of dancing of dancing air inflatable figures on pads to scare birds. RMGC is also reviewing the use of a drone to monitor pads for ponding and other potential issues that may expose wildlife to cyanide. These procedures appear to be effective. During the 2016 audit the extent of ponding on the top of the Gold Hill Leach Pad was observed to be minimal and where present was covered by netting.

During the 2016 ICMC recertification audit, the auditor reviewed and verified the effectiveness of these programs while on site, as well as wildlife mortality reporting documents and compliance records. It was noted that the Gold Hill Dedicated Leach Pad was not draining as designed due to excessive fines in the ore being leached and partially blocking the engineered

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drainage at the base of the pad and resulting in ponding and solution flow along the toe of the south side of the pad. RMGC was using netting to cover the solution, although the netting was proving difficult to maintain and several locations along the toe were identified where solution was exposed. Immediate action was taken to cover the open solution observed at these locations; however, RMGC needed to address this issue by providing a more reliable way to ensure that the solution is covered. Review of wildlife mortality records indicated that one bird mortality was associated with ponding at the edge of the pad at Gold Hill.

Subsequent to the field component of the audit and as a temporary remedy RMGC enhanced its inspection and maintenance program along the toe of the Gold Hill Leach Pad to ensure that netting was adequately maintained to ensure that the open solution channels were covered to prevent access to avian wildlife. RMGC also issued a tender for grading and drainage construction to enhance drainage at the toe of the pad to reestablish sub-surface solution flow and prevent solution ponding. The construction contract was awarded in November 2016 and the construction work was completed in the third week of December 2016. Because of the enhanced monitoring and management program implemented to ensure that netting is in place to prevent wildlife accessing ponded solution along the toe of the leach pad and because the majority of solution is considered to be pregnant solution of low cyanide concentration that is seeping and ponding at the toe of the pad, it is the auditors opinion that there is no immediate risk of wildlife mortality during the period of construction.

4.5 Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.5.

Discuss the basis for the Finding/Deficiencies Identified:

This Standard of Practice is not applicable, as no perennial streams or other surface water features are located within the permitted area of the RMGC mine property or in close proximity. Consequently, the WPCPs do not require surface water monitoring down gradient of the cyanide facilities. Although, cyanide solution spills have occurred outside of containment over the three-year period between ICMC recertification audits, surface water has not been impacted.

4.6 Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.6.

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Discuss the basis for the Finding/Deficiencies Identified:

The Round Mountain and Gold Hill facilities are designed and operated as zero-discharge facilities. The project construction and operation include a number of seepage control technologies such as composite liner systems at the heap leach pads consisting of compacted low-permeability soil liner overlain by geomembrane liners, double geomembrane liners with leak detection systems at the process ponds, geomembrane-lined containment channels for solution pipelines, and concrete secondary containment in process areas. The TSF embankment foundation is constructed with an HDPE primary liner underlain by a soil liner. An underdrain blanket with a series of perforated drainage pipes is installed above the primary liner to facilitate collection and drainage of solution from beneath the impoundment. The pipeline system conveying tailings from the Mill to the TSF is constructed of HDPE material and is contained within a compacted clay channel. The channel provides secondary containment for the pipeline system. The facility design and construction meets NDEP standards.

RMGC conducts regular inspections and monitoring of the TSF and heap leach facilities to ensure that the operating criteria are being met. In addition, regular monitoring of groundwater and leak detection systems is conducted to ensure that the facility is functioning as designed and protective of the environment.

Groundwater use in the RMGC operation area is protected for domestic, mining and milling uses, and the regulatory numerical standard established for groundwater protection is 0.2 mg/L WAD cyanide, for Primary and Secondary Drinking Water Standards. The monitoring results reviewed demonstrate that the operation has not exceeded the above referenced numerical standard for WAD cyanide at the groundwater compliance points, and that the operation is protective of the designated "beneficial use" of groundwater. All results reported for WAD cyanide have been well below the standard during this three-year period between ICMC recertification audits.

4.7 Provide spill prevention or containment measures for process tanks and pipelines.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.7.

Discuss the basis for the Finding/Deficiencies Identified:

All cyanide storage and process tanks are located within concrete or lined secondary containment and except for the construction of three pH enhancement plants located at the West Dedicated Plant (at South ADR and at Pond#13) and Dedicated Plant there have been no significant structural changes to these containments or additional containments constructed

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since the 2013 audit. The recently completed pH Enhancement Plants, for addition of hydrated lime to process solution to increase pH, are constructed on steel skid frames which are set a gravel pad on the top of HDPE containment liners that drain to the barren ponds.

During the 2010 ICMC recertification audit, RMGC provided evidence demonstrating that the secondary containment for all process solution tanks at Round Mountain is sized adequately (i.e., to hold a volume greater than that of the largest tank within each containment and any piping draining back to the tank, and with additional capacity for the design storm event). During this 2013 ICMC recertification audit, RMGC personnel indicated that no new tanks have been added to the Round Mountain process circuits and that containment/tank capacities have not changed. As stated in the as-built report for the Gold Hill facilities, all secondary containment areas at the Gold Hill process facilities are built to contain 110% of the contents of the largest vessel located within the containment area. The containments for the newly constructed pH Enhancement Plants are connected to solution or event ponds which contain more than adequate capacity to retain the volume of the tanks and piping for these plants.

The concrete secondary containments provided for the cyanide process tanks at the Mill, and in the South ADR Plant, Dedicated Plant, and Gold Hill ADR Plant buildings have concrete floor sumps with dedicated pumps to collect and remove cyanide solution and slurry spillage for return to the process circuits and/or convey spillage to a lined solution pond. Daily visual inspections conducted by operations personnel include the physical integrity and available capacity of the secondary concrete containments, lined areas, and ponds. All drains within containments connect to additional containment areas (e.g., process ponds).

All cyanide process solution pipelines at Round Mountain and Gold Hill are provided with spill prevention or containment measures including leak detection systems where pipes are underground. Additionally, operators are required to review HLF pipe flows and pressures at least once per hour and compare results to the previous values. The DCS alerts control room operators when a pressure differential occur. There is an annual non-destructive testing program for the HDPE tailings pipeline system between the Mill and the TSF to ensure its physical integrity. All pipes containing cyanide at Gold Hill are provided with secondary containment, consisting of either synthetic liner or clay liner, or both, to provide containment should a spill or leak occur. Leak detection for all primary containment pipes is ensured either by visual inspection (as the pipe is exposed) or by a casing pipe (i.e., pipe-in-pipe system), that is sloped to a daylight area for visual inspection.

RMGC uses black iron, stainless steel, and HDPE pipelines for conveyance of cyanide solutions and slurries. Bushings are installed where black iron and stainless steel join to prevent direct contact. Cyanide storage and process tanks are carbon steel. These materials are compatible with cyanide and high pH solutions.

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4.8 Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.8.

Describe the basis for the Finding/Deficiencies Identified:

Detailed Audit Findings Reports (April 2007, August 2010 and January 2014) summarize the construction quality assurance and quality control (QA/QC) documentation for the cyanide facilities in operation during those audits. New and modified facilities constructed subsequent to the 2103 ICMC recertification audit include:

- Completion of TSF Stage 6
- Increase West Dedicated Leach Pad Capacity-Phase 7A, Phases 1 and 2
- Upgrade of ADR West Dedicated Pumps and Pipeline
- Optimization of Carbon Columns
- pH Enhancement System Lime Addition (Dedicated Plant)
- Gold Hill Pump #3 Installation
- West Dedicated Pad South Containment Repair
- Dedicated Plant New Carbon Columns
- Flowmeters and Samplers
- Concrete Seal for ADR and Refinery
- pH Enhancement West Dedicated (South ADR and Pond#13) (ongoing)
- Cyanide Destruct Upgrade (ongoing)

RMGC implemented QA/QC programs during the construction of these facilities that are documented in construction reports. The QA/QC programs conducted for the construction of the Tailings Storage Facility Stage 6 Vertical Expansion, West Dedicated Leach Pad 7A Phases 1 and 2, Tailing Storage Facility Cell B Started Stage, and the Concrete Seal for the ADR and Refinery were completed and documented by Knight Piésold. The other projects completed in the past three years were overseen by Kinross engineers and management. All engineering design and construction drawings, equipment specifications, construction monitoring and QA/QC information for cyanide facilities are archived in hardcopy in the in the engineering vault located in the Administration building and/or electronic format stored in project files on the RMGC Technical Services Drive. Appropriately qualified personnel reviewed cyanide facility construction and provided approval and sign-off that the facility has been built as proposed.

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4.9 Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 4.9.

Describe the basis for the Finding/Deficiencies Identified:

The monitoring program is designed to adequately characterize groundwater quality and wildlife mortalities and monitor trends and significant changes. The monitoring programs have been approved by Nevada Department of Environmental Protection (NDEP) and Nevada Department of Wildlife (NDW) and are required by the WPCPs and IAPPs.

RMGC continues to use the Environmental Management and Procedures Manual (EMPM) that was in place during the 2013 recertification audit. The manual addresses both groundwater monitoring and leak detection monitoring. The EMPM was developed by experienced and qualified RMGC personnel. The NDEP reviews and approves all monitoring locations. The RMGC Environmental Manager periodically reviews and updates the EMPM to reflect current activities and operations. Environmental personnel must complete task training in the monitoring programs before they are allowed to collect water samples without supervision.

The EMPM also includes a Wildlife Management Plan, which addresses procedures for handling live wildlife and wildlife mortalities and implementing measures to prevent wildlife from gaining access to potentially lethal materials, including cyanide ponds and heap leach facilities. Wildlife monitoring is integrated into the daily inspections performed by operations personnel. Additionally, RMGC environmental personnel conduct weekly inspections of the operation, which includes observation of wildlife. RMGC submits quarterly Wildlife Mortality Reports to Nevada Department of Wildlife in accordance with the Industrial Artificial Pond Permits held by RMGC.

The EMPM includes operating procedures that provide instruction on sample collection. Instruction includes decontamination of equipment, purging of groundwater wells, filtration and preservation of samples, and labelling and shipping of samples, including chain-of-custody protocol. The Manual includes the locations and frequencies of water sampling and leak detection monitoring as required by permit. RMGC also has a detailed site plan that shows each sampling and monitoring location. Water quality samples are analyzed by outside laboratories certified in the State of Nevada, using approved analytical methods, as a requirement of the WPCP.

RMGC documents sampling conditions on Well Field Sheets. Information provided on the sheets includes the name of the person collecting the sample, the sample location, date,

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general conditions, static water levels, pumping rate and start/stop times, gallons evacuated, well specifications, sample temperature, specific conductivity, pH and general remarks.

RMGC does not monitor surface water quality downstream of the site as there are no perennial streams or other natural water bodies downstream within proximity of the mine site. Groundwater is monitored as required by the WPCPs. The number of groundwater monitoring wells is unchanged since the 2013 recertification audit. There are a total of nine groundwater monitoring wells at Round Mountain and nine at Gold Hill that are monitored for WAD cyanide on a quarterly basis. The monitoring wells are located upgradient and down gradient of the process facilities in various locations around the property.

5. DECOMMISSIONING Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.

Standards of Practice

5.1 Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of 5.1.

Describe the basis for the Finding/Deficiencies Identified:

As a condition of its Reclamation Permit with the State of Nevada, and in accordance with state and federal regulations governing the reclamation of mined lands, RMGC submits a Comprehensive Reclamation Plan ("CRP") and Bond Cost Estimate for review and approval by the NDEP and the Bureau of Land Management (BLM), the federal land manager.

RMGC submitted a *Revised Comprehensive Reclamation Plan and Bond Cost Estimate* (Plan), in September 2014. The Plan is an update to the Plan of Operations as amended in 2010 which allowed for the expansion of operations at the Round Mountain Mine and development of the operations at the Gold Hill site.

The reclamation activities and associated technical criteria provided in the 2014 Plan focus on all aspects of the operation including the following cyanide facility components: Mill and flotation facility; tailings storage facilities and associated ponds and pipelines; heap leach facilities including of associated ponds, plants, carbon columns, and interim fluid management; process and administration facilities; stormwater diversion ditches; monitoring and production wells; and updated process fluid management costs for heap leach and tailings facilities. The Plan contains a summary of closure measures planned for cyanide facilities in

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sufficient detail to allow estimation of third party implementation costs. As the actual commencement of closure and reclamation approaches, it is understood that RMGC will provide additional procedural details in the final Plan as necessary to fully implement closure obligations.

The 2014 CRP and Bond Cost Estimate presents a general project schedule that addresses approximate operational time frames, closure, reclamation, and post-mining monitoring for both the Round Mountain and Gold Hill areas. The schedule includes process fluid stabilization for the heap leach facilities and the tailings impoundments, as well as demolition and reclamation of milling and process facilities.

RMGC reviews its closure and reclamation procedures and submits an updated *CRP and Bond Cost Estimate* to NDEP and the BLM on an annual basis. This annual commitment is not a regulatory requirement and is based on an agreement between RMGC and the two agencies. BLM and NDEP review the closure and reclamation procedures and cost estimate jointly for completeness and bond sufficiency. The most recent updates are the *Revised CRP and Bond Cost Estimate* Report dated September 2014 and SRK Consulting (SRK) letter dated 3 November 2014 entitled "*Response to BMRR Review Comments to Round Mountain Gold Corporation's 2014 Revised Comprehensive Reclamation Plan and Bond Cost Estimate, dated September 2014*", used as a basis for the latest cost estimate dated June 2015 approved by NDEP and BLM for setting the reclamation bond.

5.2 Establish an assurance mechanism capable of fully funding cyanide-related decommissioning activities.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 5.2.

Describe the basis for this Finding/Deficiencies Identified:

Decommissioning planning requirements are driven by regulation, and have not changed since the 2013 audit, and include requirements for estimating third-party costs as the basis of an annually updated bond with the NDEP and BLM. This annual commitment is not a regulatory requirement and is based on an agreement between RMGC and the two agencies. BLM and NDEP review the closure and reclamation procedures and cost estimate jointly for completeness and bond sufficiency. RMGC also updates its reclamation bond during any Minor or Major Modification to the WPCP or Plan of Operations.

RMGC contracts SRK to update the reclamation bond cost estimate annually. The estimate is derived using the most current version of the Standardized Reclamation Cost Estimator (SRCE), a cost estimating program developed by BLM and NDEP to prepare annual bond updates. The SRCE estimates are based upon a third-party government contractor performing

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the reclamation work and includes indirect costs for Engineering and Design, Contingency, Insurance, Performance Bond, Contractor Profit, Contract Administration, and BLM Indirect Costs. The most current estimate was completed in June 2015 and approved in letters from NDEP and BLM dated 26 August 2015 and 23 September 2015, respectively. The BLM currently holds three reclamation bonds, which guarantee surface reclamation for operations conducted by RMGC under its Plan of Operations. Bonds previously held by Barrick Gold, when RMGC was jointly owned were replaced, assigning all obligations to RMGC.

6. WORKER SAFETY Protect workers' health and safety from exposure to cyanide.

Standards of Practice

6.1 Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 6.1.

Describe the basis for the Finding/Deficiencies Identified:

In general, the RMGC Safety Management System consists of several Programs, Policies, Standards, Procedures and Safe Work Practices. Since the previous audit, RMGC has made some changes and additions to the Management System which now include the identification of High Risk Activities and the development of a Safe Practices Manual (SPM). Activities related to cyanide offloading, storage and plant operations associated with cyanide are now being identified as High Risk Activities as part of the RMGC Risk Management Program. Beginning in 2016, RMGC developed the SPM to include both Safe Work Practices SWPs and Standard Operating Procedures (SOPs) in order to provide a more standard and consistent approach toward general safety, chemical safety, and environmental awareness.

The SPM has been developed and standardized for the ADR, Dedicated, Gold Hill ADR and Leach Pad Operations and RMGC is currently in the process of replacing some of the previous 'Task Cards' that addressed work at these cyanide facilities. The SPM includes both SWPs and SOPs which address the following:

- General procedures for Cyanide Safety (including both Mill and Ore Processing), Solution Plant Entry, Titrating Cyanide, Power Outage, and Working around Water (related to solution ponds, sumps and solution ditches), and Sodium Cyanide Addition to the Leach Circuit.
- General safety provisions and requirements for safely accessing pads and procedures for placing, positioning, connection and removal of pipe from the pads, operation of

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valves in collection boxes, and replacing valves on the leach pads (including reusing valves on the dedicated pads).

A site wide documented Confined Space Program has been developed as part of the Health & Safety Management System and permits for Confined Space Entry are included as part of the RMGC Permit to Work program.

As part of the overall Health & Safety Management Plan, RMGC has incorporated a site wide Management of Change (MOC) Program consistent with Kinross Corporate requirements. Each generated MOC requires a Risk Assessment, stakeholder approval, verification of the change, and follow-up to ensure the changes are effective. In the appraisal process, Cyanide Code is specifically listed as requiring the proposed change to go through the full review and approval process to include at a minimum, sign-off from the Health & Safety and Environmental departments and any applicable or affected department Managers.

RMGC utilizes a continuous improvement (CI) process for actively soliciting worker input regarding health and safety procedures. New in 2013, RMGC set up CI boards on the walls at the Mill and ADR to solicit input from employees and allow employees to monitor progress of suggestions through filling out a suggestion card and placing it on the main bulletin board. Cards with red color are related solely to Health and Safety improvement suggestions some of which were observed to be directly related with cyanide facility improvements.

6.2 Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 6.2.

Describe the basis for the Finding/Deficiencies Identified:

The Safe Procedures Manual (SPM) outlines the minimum pH levels for the ADR, Dedicated and Gold Hill ADR facilities. ADR assistants are required to titrate solutions and check the pH levels every 2 hours and if the pH drops below 9.6, the ADR assistant is to notify the Supervisor who is then required to implement controls while monitoring atmospheric conditions with a hand-held HCN detector every hour. At the mill facility, pH levels for Leach, CIL, and cyanide destruct tanks are checked on a periodic schedule throughout the shift. The average pH levels for the tanks are also calculated for the shift and reported in the daily operations report and pH adjustments are made accordingly. Since the previous audit, RMGC has added three pH enhancement skids, to increase the pH of the solution from approximately 9.6 to 10.5. In addition to reducing cyanide usage these enhancement skids will help stabilize and maintain the pH levels and reduced the potential for HCN gas generation.

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RMGC has identified the Dedicated Plant, ADR and Gold Hill ADR, and the Mill area head screen as areas where workers may potentially be exposed to HCN levels in excess of 10 ppm. RMGC utilizes both fixed station and hand-held HCN gas detectors to monitor for HCN. The hand-held detectors are equipped with automatic maintenance and calibration stations and each cyanide facility is assigned a set of instruments and a calibration station. The hand-held units are set to alarm at 4.7 ppm and can also provide data as Time Weighted Average (TWA) over an 8-hour period which provides a mechanism for evaluation of exposure over time. The fixed station monitors are equipped with two alarm settings. At 4.7 ppm the alarm will activate a warning strobe above the stationary detector visually notifying operators and employees of the potentially elevated HCN levels and the necessity to take proper precautions and make necessary operational changes to reduce the HCN levels. At 10 ppm, the secondary audible alarm is activated indicating the need to evacuate the plant.

The fixed stationary HCN detectors are calibrated every 28 days through the preventative maintenance program and a generated work order. The work order establishes the procedural steps for calibration along with testing of both the visual and audible alarms. Monthly span calibration and bump-tests for the hand-held units are accomplished through automated calibration stations set up in each area. The calibration station software tracks the model and serial number of each instrument, the calibration dates, location of the hand held unit and the serial number of the assigned docking station.

Cyanide warning signs were in place at all entrances to each plant, pond area entrances and along fencing and on tanks and piping containing cyanide. All signs were visible and were observed to be maintained in good condition. Tanks and piping at the mill, ADR, South Dedicated and Gold Hills ADR were all clearly identified as cyanide. Direction of flow indicators were available on all piping and were sufficient to be able to trace the direction of flow through the process.

Showers and emergency eye wash stations are strategically located at each cyanide facility and delivery and off-loading areas. All eyewash stations were checked during this audit and it was observed one station near the titration station at the mill was newly installed and not hooked up and another at pond 11 had inadequate flow. Work orders were immediately generated and both stations were fixed and documented as working properly prior to end of the site visit. In 2016, RMGC purchased three new portable eyewash and shower stations to be used as back-ups in the event any are discovered inoperable.

Dry chemical fire extinguishers are visually inspected monthly by each department and hydrostatically tested every 3 years. Any damaged or out of service extinguishers are removed from service and immediately replaced. The Safety department reviews the inspection checklist from each area and records the information in an electronic file.

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Safety data sheets are available in English and RMGC utilizes 3E Software to manage their material safety data. Information from the SDS and how to retrieve an SDS is included as part of the new employee orientation training program. Information regarding the necessary precautions and treatment of cyanide exposure are provided in the first aid cabinets and a copy of cyanide poisoning treatment is available inside the antidote kits.

RMGC has an incident investigation Standard and Procedure in place which defines the requirements for documenting and investigating all incidents, including hazard and near miss reporting and follow-up. The procedure requires any incident to be immediately reported to the Supervisor whom is required to fill out the Supervisor Incident Investigation packet which includes all details associated with the incident along with identification of basic and root causes, and follow up corrective actions.

6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 6.3.

Describe the basis for this Finding/Deficiencies Identified:

Cyanide first aid kits are available at strategic locations throughout the operation. Kits are stored in back packs or duffel bags inside refrigerators. The kits contain amyl nitrite ampules, activated carbon, oxygen bottle and nasal cannula, bag valve masks and a laminated sheet of first aid instructions for responding to cyanide exposure victims. Both the clinic and ambulance kits also contain hydroxycobalamin (B-12) injectable. A master inventory list of the kits has been developed and each kit is fully inspected monthly.

Telephones and radios are used for communication inside the plants. Radios have a dedicated emergency channel which is monitored by security and emergency response. Radios are also standard issue inside each light vehicle. Each person with dedicated responsibilities related to cyanide or emergency response also carry cell phones. TransWood delivery drivers are required to carry RMGC radios for communication with designated off-load facility personnel at all times while at the facility.

RMGC has a dedicated and trained Emergency Response Team capable of responding to cyanide related incidents and providing emergency medical assistance where necessary. RMGC has its own clinic open Monday – Saturday and staffed with two nurses and a Physician’s Assistant. The clinic has 24/7 (on-call) capabilities and will coordinate with local emergency services in the event a serious incident occurs during off-hours. RMGC also has a dedicated site ambulance available and capable of transporting patients directly to the Nye County Hospital or the coordinated transfer of patients to the Nye County Ambulance at the

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county road transfer point. This is based on a reciprocal aid agreement established with the Nye County Regional Medical Center in 2013 which in turn establishes the availability for RMGC ambulatory services and emergency response assistance within the local community as needed.

Mock drills are conducted periodically to test response procedures for various cyanide exposure scenarios. Two formal emergency mock drills involving cyanide were completed in the last three years: one in 2015 that involved an on-site spill with HCN off-gassing and two missing persons and one in 2016 that involved an off-site vehicle collision with a loaded Cyanide tanker truck which caused severe trauma, mortalities, vehicle and facility fires and required the evacuation of a local school. Both scenarios were considered complex and were formally observed by members of the site Cyanide Code Team and lessons learned were documented.

7. EMERGENCY RESPONSE Protect communities and the environment through the development of emergency response strategies and capabilities.

Standards of Practice

7.1 Prepare detailed emergency response plans for potential cyanide releases.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.1.

Describe the basis for the Finding/Deficiencies Identified:

The RMGC Emergency Response Plan contains both general and cyanide specific procedures for responding to a spill or accidental release of cyanide. The Plan describes the spill or release and clean-up procedures and also includes the location and components of spill response kits and associated equipment. The Plan has identified the followed as potential scenarios:

- Catastrophic release of hydrogen cyanide from storage or process facilities
- Transportation accidents
- Releases during unloading
- Releases during fires and explosions
- Pipe, valve and tank ruptures
- Overtopping of ponds and impoundments
- Power outages and pump failures
- Uncontrolled seepage
- Failure of cyanide treatment, destruction or recovery systems
- Failure of tailings impoundments, heap leach facilities and other cyanide facilities

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Cyanide is transported between the Winnemucca production plant and the mine site in liquid form in tanker trucks. The Sodium Cyanide Contract between Kinross Gold and Cyanco Corporation states that emergency response during transport is the responsibility of Cyanco and their transporter TransWood. By means of their process for compliance with the Cyanide Code, Cyanco and TransWood, have evaluated and documented all sodium cyanide shipment routes taking into consideration the physical form of cyanide, method of transport, and road conditions throughout the route from the Winnemucca to the RMGC off-loading facility. TransWood uses the documented Cyanco emergency response plan for the transportation of cyanide.

7.2 Involve site personnel and stakeholders in the planning process.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.2.

Describe the basis for the Finding/Deficiencies Identified:

In 2008, RMGC developed a Memorandum of Understanding (MOU) with the local Nye County Hazmat and Emergency Response team. This MOU integrates local Emergency Response procedures and training under a common umbrella and is included as part of a Kinross Corporate Program for Awareness and Preparedness at the Local Level (APELL) which is governed by the Corporate Crisis Management plan and considered in part with the United Nations Environmental Program, and the State of Nevada Comprehensive Emergency Management Plan (CEMP).

RMGC participates in the Nye County planning process to coordinate response and training efforts and minimize potential risk to the community. The Nye County team Fire department and ambulatory services participated in the most recent mock emergency drills. As part of the Emergency Response Plan, both local and outside agency contact information is maintained and reviewed on a quarterly basis.

Transwood drivers are provided new employee safety orientation through the sites Contractor Training program and they also participate in RMGS's annual refresher training program

7.3 Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.3.

Describe the basis for the Finding/Deficiencies Identified:

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The Emergency Response Plan lists both primary and alternative coordinators, their responsibilities within the program, and their contact information. Roles and responsibilities for Emergency Response are established within the Plan and are also required as part of the Kinross Corporate Management System Standards. An updated Emergency Response Roster to include members on each crew and each shift is available within the Plan and audited on a quarterly basis. Call-out procedures are identified in the Plan. All EMT's are licensed and certified through the State of Nevada, Department of Human Resources, Division of Health's bureau for licensing and certification. Specific Emergency Response training for team members is conducted on a monthly basis and includes training sessions on medical emergencies, cyanide-antidote kits and intravenous (IV) administration, 40-hour Hazwoper, ambulance driving, and confined space rescue.

All emergency response equipment is included in a monthly inspection program. The inspection also includes the ambulance, full service fire truck, Hazmat trailer, and all associated equipment. Equipment is also restocked after use or training.

RMGC has made outside entities aware of their roles in the Emergency Response Plan and involves them in mock drills or implementation exercises. General agreements have been established for Nye County Emergency Response and Medical Centers and a memorandum of understanding (MOU) is established with the emergency medical services in Fallon Nevada. Records of mock drills also provide evidence of the involvement and coordination with outside services.

7.4 Develop procedures for internal and external emergency notification and reporting.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.4.

Describe the basis for the Finding/Deficiencies Identified:

The State of Nevada has regulations which establish the requirements for reporting to various agencies based on specifics of the emergency. The Health & Safety Department Manager has the obligation of notifying the Mine Safety & Health Administration for any accident which would trigger immediate regulatory reporting such as fatality, or loss consciousness or 24-hr hospitalization. The site General Manager has the obligation of notifying the local community and family members in the event of an emergency and would be supported by the Community Relations Manager who would also act as a liaison between the local communities and the local media where necessary.

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In the event of an emergency that could not be handled by RMGC and develop into a potential crisis with national media involvement the site would initiate the Corporate Crisis Management Plan which requires the involvement of several key Corporate Department heads to help manage issues related to the community and communication with local and national media as necessary.

7.5 Incorporate into response plans monitoring elements and remediation measures that account for the additional hazards of using cyanide treatment chemicals.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.5.

Describe the basis for the Finding/Deficiencies Identified:

In the event of a spill or release, Area Supervisors are required to assess the situation, contain the spill if safe to do so or evacuate the area and activate the emergency response team if necessary. Once contained, the plan then requires an estimate of the quantity and concentration of the release.

The spill response measures defined in the Emergency Response Plan outline actions for spill containment including the construction of emergency ditches or earth berms in the event of a large mobile spill and the use of calcium hypochlorite for neutralization and destruction of free cyanide in contaminated soil where it wouldn't be possible or practical for the soil to be completely removed and relocated to a leaching pad.

The Environmental Management and Procedures Manual (EMPM), provides guidance for environmental monitoring of spills and reporting procedures. The Water Pollution Control Permits (NEV0087052 & NEV2010110) require reporting of spills and any remediation efforts on at least a quarterly basis.

In 2016, RMGC updated their EMPM to provide additional details on spill clean-up. After excavation of a spill on soil, the Environmental Department oversees sampling of the affected area. Small spills require a sample with up to two aliquots, and larger spills require at least one aliquot per 100 square feet to provide a composite sample to determine if more soil needs to be excavated. Samples are sent to a Nevada certified laboratory and analysed for WAD cyanide. Clean-up must be < 0.02 mg/L before the clean-up is considered complete.

Groundwater is monitored as required by the WPCPs. The number of groundwater monitoring wells is unchanged since the 2013 recertification audit. There are a total of nine groundwater monitoring wells at Round Mountain and nine at Gold Hill that are monitored for WAD cyanide on a quarterly basis.

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Although the risk of contaminating any drinking water is extremely low, alternative drinking water supply and provisions can be arranged though the town of Hadley if needed.

In the event a spill is incurred in the transportation process between Winnemucca and RMGC, Cyanco and TransWood would assume the responsibility and liability for clean-up.

7.6 Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 7.6.

Describe the basis for the Finding/Deficiencies Identified:

RMGC audits the Emergency Response Plan on a quarterly basis. If changes to the plan are identified, they must be signed off by the Health & Safety Department Manager and communicated to the site. The plan is available on the company intranet and share point site and only two controlled hard copies of the plan exist that require updating. One hard copy is located in the Safety Office and one in the General Manager's office.

Since 2013, two mock emergency drills related to Cyanide have been conducted and documented. The last emergency response incident related to cyanide occurred in December of 2011, where a spill which occurred on site and went off the site by Pond 31. The spill did not meet federal reporting requirements but was reported to the State (NDEP) and to ICMI. The Bureau of Mining Regulation and Reclamation (BMRR) took oversight on the clean-up and the contaminated soil was remediated accordingly. A review of the response and emergency actions after the spill was identified concluded that the response went in accordance with the plan.

8. TRAINING Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standards of Practice

8.1 Train workers to understand the hazards associated with cyanide use.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 8.1.

Describe the basis for the Finding/Deficiencies Identified:

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All new hires and contractors receive hazard awareness training as part of their site orientation which covers the sites policies, general site safety requirements, PPE, cyanide safety, locations where cyanide is used and site general emergency procedures. RMGC employees and contractors are required to satisfactorily pass an exam after classroom training is completed.

In 2016, RMGC developed a new Cyanide Awareness Training video to replace the previous version of the "CN Code at RMGC" voice over power point presentation which covered requirements of the Code. As part of their worksite orientation, ADR employees receive additional hazard recognition training which includes the effective use of pH as a cyanide control.

As required by the Mine Safety & Health Administration (MSHA), RMGC conducts a full 8-hour annual refresher training course. Cyanide Hazard awareness is one of the topics covered in that course and all RMGC employees and contractors are required to participate in this training. Employee training records, including those related to cyanide are all kept on file with the Training Coordinator and also entered into an electronic training matrix.

8.2 Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 8.2.

Describe the basis for the Finding/Deficiencies Identified:

In addition to the general site orientation and hazard recognition training all employees are provided with site specific orientation to their work area followed by on the job task training. Each work area has a written orientation outline which lists all of the main training objectives for that area.

Operators responsible for bulk unloading of cyanide receive training on specific tasks required by the bulk off-loading procedure. All CIL Operators at the Mill receive on the job task specific training on the aspects of cyanide addition, titration, PH control, neutralization and destruct processes, and the operation of control valves.

As part of the work area training outline, a training objective checklist and sign off sheet is used to ensure each element of training for that particular area has been conducted and signed off by the trainer and the Supervisor. A training matrix (green sheets) has been

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developed to determine the level of competency and the necessary training and competencies required to progress from an entry level to an advanced operator position.

Leach pad operators are trained in relation to the Leach Pad Operating Procedure which outlines the proper use of valves, installing and connecting piping, and measures to ensure proper pressure and pad flow is achieved.

Employees are well trained on cyanide safety and have been provided all site specific orientation prior to initiating work. RMGC employees are not allowed to perform tasks on which they haven't been trained. Process training coordinators provide hazard awareness and site specific orientation training. Process trainers are only those individuals identified as having significant prior work experience in respective area of operation. Re-training is conducted in the event of an incident occurring or where job observation has identified the need for additional training. Annual Refresher Training (ART) includes the use and characteristics of sodium cyanide, where cyanide is used, the associated hazards, routes of exposure, symptoms of poisoning, and proper first aid techniques. It also covers management aspects such as pH control, delivery truck design features, safe handling and detoxification of cyanide.

8.3 Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 8.3.

Describe the basis for the Finding/Deficiencies Identified:

All site personnel have been trained in hazard awareness and emergency procedures including alarms, notification and evacuation and all workers in cyanide facilities have been provided specific cyanide safety training. In addition to RMCG's orientation training, all TransWood drivers complete Cyanco's required Safety training. Many of the RMGC team members having responsibilities in the management of cyanide or specific functions such as monitoring the off-loading process are also Emergency Response team members who participate in monthly emergency response training.

There are currently 16 members of the Emergency Response Team that are Hazmat certified and the RMGC team are well prepared with the necessary equipment and procedures in place to effectively respond to a release. Both site ERT members and members of the Nye County Hazmat teams are trained in decontamination procedures and the use of level A and B protective equipment including the use of Self Contained Breathing Apparatus (SCBA). In 2016, in relation to cyanide emergencies, the team was trained by Medical Doctor (MD) on

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how to administer IV's and in the use of Cyanokits. At the time of the audit, RMGC had just recently been given approval to train all of their security staff in emergency medical response.

In the past three years RMGC has conducted two cyanide related mock drills. The scenario in 2015 involved an on-site spill with HCN off-gassing and two missing persons. The scenario in 2016, involved an off-site vehicle collision with a loaded Cyanide tanker truck. The mock drills were documented and formally observed by Management and members of Cyanide Code Team. Lessons learned were documented and various photos of the exercises were taken for the purposes of critiquing and for future training and emergency drills. In addition to the site mock drills, RMGC also conducts exercises as part of the Kinross Crisis Management System (KCMS). The exercise links the site Emergency Response Plan and activities to individual roles and responsibilities for handling an emergency situation that may escalate to a crisis.

9. DIALOGUE Engage in public consultation and disclosure.

Standards of Practice

9.1 Provide stakeholders the opportunity to communicate issues of concern.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 9.1.

Describe the basis for the Finding/Deficiencies Identified:

RMGC provides the opportunity for stakeholders and the community to communicate issues of concern. Phone numbers and contact information is provided on the Kinross website and in tri-fold brochures about the mine operations, including cyanide use, which are available at the main office. RMGC also provides visitors and local community tours of the mine. RMGC has initiated annual town hall meetings to discuss annual plans of operations, any upcoming activities or events the community needs to be aware of or any issues that may involve community input or decisions. The town hall meetings provide an opportunity for community members to discuss any concerns related to the operation or its activities in addition to requests for the mine to provide assistance where needed.

9.2 Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 9.2.

Describe the basis for the Finding/Deficiencies Identified:

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The Kinross website contains information regarding cyanide management as part of the Social Responsibility program which identifies their commitment to the ICMC and the status of all of their operations. The website, phone numbers and contact information is provided in tri-fold brochures which are available at the main office and given out visitors and provided during local community tours.

9.3 Make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation is: ■ in full compliance
 in substantial compliance
 not in compliance...with Standard of Practice 9.3.

Describe the basis for the Finding/Deficiencies Identified:

Two tri-fold brochures have been developed regarding the safe and responsible use of cyanide at RMGC. The brochures cover aspects such as the purpose and use of cyanide in mining, how it is being transported and stored at the site as well as RMGC's commitment to Environmental protection and the sites voluntary compliance and current status with the International Cyanide Management Code. The Kinross website contains information regarding cyanide management as part of the Social Responsibility program which identifies their commitment to the ICMC and the status of all of their operations

Interviews with staff including the Corporate Social Responsibility Specialist indicate the mine site has very good relations and reputation with all of the local communities including the City Councils for Hadley, Carvers, Tonopa, Manhattan and Austin.

In the previous 3 years since the last re-certification audit, RMGC has not incurred a cyanide related hospitalization or fatality nor has such an incident been recorded since life of mine. In the previous 3 years and since the last re-certification audit, RMGC has not incurred a cyanide release off the mine site requiring response or remediation or resulting in adverse effects to health or the environment. RMGC does not discharge from any facility including tailings and is not a Title V regulated facility due to very low emissions. Since the previous audit there have been 7 minor spills on site, all of which were reported to the State of Nevada as required. None of the spills met the requirements for Federal reporting.

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